

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CARDIOCOM, LLC,
Petitioner,

v.

ROBERT BOSCH HEALTHCARE SYSTEMS, INC.,
Patent Owner.

Case IPR2013-00449
Patent 7,840,420 B2

Before MIRIAM L. QUINN, STEPHEN C. SIU, and JUSTIN T. ARBES,
Administrative Patent Judges.

ARBES, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. BACKGROUND

Petitioner Cardiocom, LLC filed a Petition (Paper 1, “Pet.”) seeking *inter partes* review of claims 1–5 of U.S. Patent No. 7,840,420 B2 (Ex. 1001, “the ’420 patent”) pursuant to 35 U.S.C. §§ 311–19. On January 16, 2014, we instituted an *inter partes* review of claims 1–5 on two grounds of unpatentability (Paper 21, “Dec. on Inst.”). Patent Owner Robert Bosch Healthcare Systems, Inc. filed a Corrected Patent Owner Response (Paper 36, “PO Resp.”), and Petitioner filed a Reply (Paper 43, “Reply”).

Petitioner filed a Motion to Exclude (Paper 53, “Pet. Mot. to Exclude”) certain evidence submitted by Patent Owner. Patent Owner filed an Opposition (Paper 57) and Petitioner filed a Reply (Paper 61). Patent Owner filed a Motion to Exclude (Paper 55, “PO Mot. to Exclude”) certain evidence submitted by Petitioner. Petitioner filed an Opposition (Paper 58) and Patent Owner filed a Reply (Paper 60). Patent Owner also filed a Motion for Observation (Paper 54, “Obs.”) on certain cross-examination testimony of Petitioner’s declarant, and Petitioner filed a Response (Paper 59, “Obs. Resp.”).

An oral hearing was held on September 9, 2014, and a transcript of the hearing is included in the record (Paper 67, “Tr.”).

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–5 are unpatentable.

A. The '420 Patent

The '420 patent¹ describes a system for “monitoring a group of patients having a chronic disease or ongoing health condition” by monitoring certain parameters of the condition, such as blood glucose level for diabetes and blood pressure for hypertension. Ex. 1001, Abstract; col. 1, ll. 30–37. According to the '420 patent, in prior art outpatient treatment programs, a clinician often learned about a patient’s status through “patient initiated events,” such as a visit to the emergency room. *Id.* at col. 1, ll. 48–67. As a result, medical needs of unmotivated patients could be overlooked. *Id.* In addition, prior art computer systems displayed medical data only on an “individual patient basis,” making it difficult to determine “which patients are having the greatest difficulty in controlling their health condition so that the clinician may focus attention on these patients.” *Id.* at col. 2, ll. 1–8. Consequently, according to the '420 patent, a need existed in the art to “view medical data for an entire group of patients simultaneously.” *Id.* at col. 2, ll. 6–8.

¹ The '420 patent issued based on U.S. Patent Application No. 12/767,093, filed on April 26, 2010, which is a continuation or continuation-in-part of a series of applications descending from U.S. Patent Application No. 08/732,158, filed on October 16, 1996.

Figure 1 of the '420 patent is reproduced below.

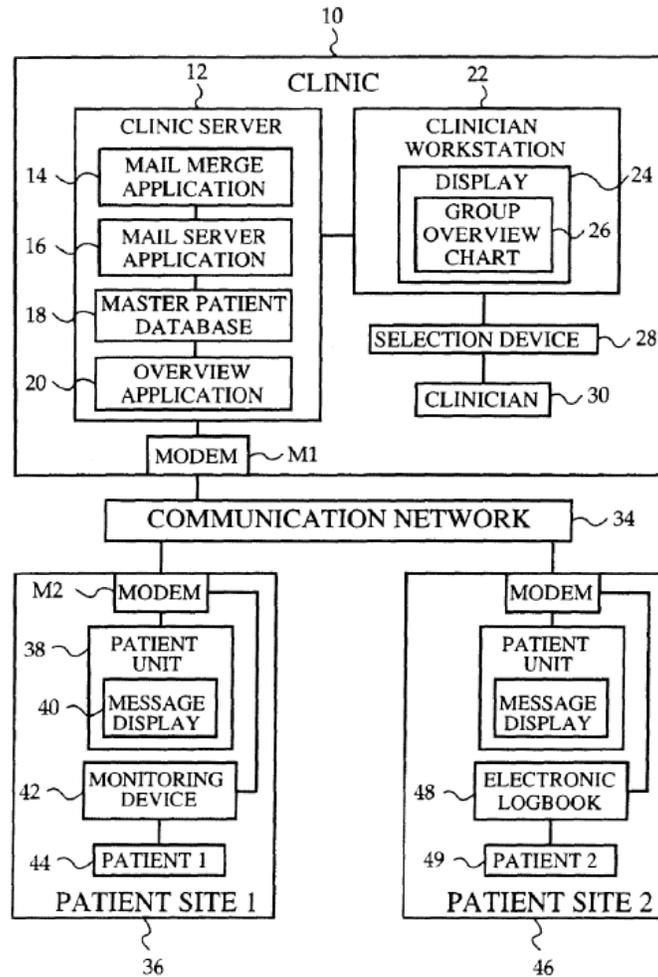


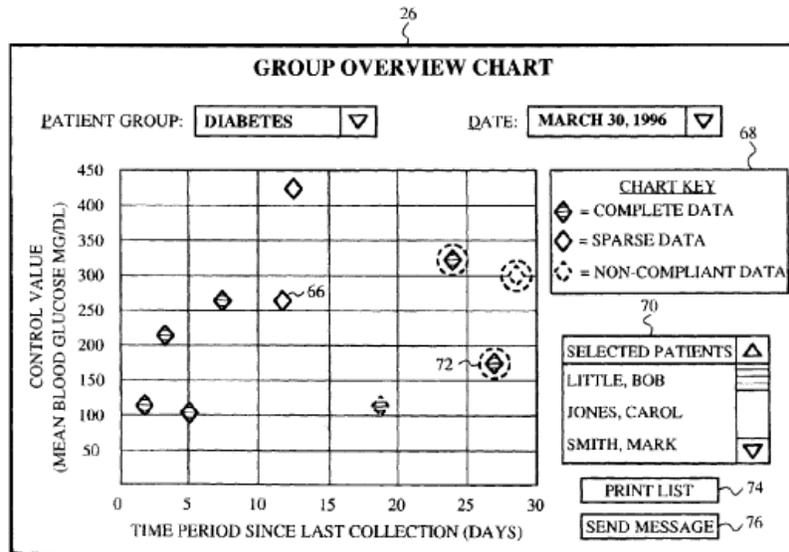
FIG. 1

Figure 1 above depicts healthcare clinic 10 in communication with patient sites 36 and 46 via communication network 34. *Id.* at col. 4, ll. 34–60. Patient site 36 includes monitoring device 42 for measuring periodically a particular health parameter of the patient, such as the patient's blood glucose level, and transmitting the measurements to healthcare clinic 10. *Id.* at col. 5, ll. 6–18. Patient site 36 also includes patient unit 38 (e.g., a personal computer) with message display 40 for displaying messages received from the clinic (e.g., emails). *Id.* at col. 4, l. 61–col. 5, l. 5.

Healthcare clinic 10 comprises clinic server 12 and clinician workstation 22. *Id.* at col. 4, ll. 34–60. Clinic server 12 includes master patient database 18 for storing patient data and overview application 20 for “performing various calculations using the patient data” and “generating a group overview chart with the patient data.” *Id.* at col. 4, ll. 44–49.

Overview application 20 calculates a “control value” for a patient indicating the patient’s “control over the health condition” (e.g., the mean value of a parameter over a given period of time). *Id.* at col. 6, ll. 10–22. The control values for a group of patients then are displayed in group overview chart 26 on clinician workstation 22. *Id.* at col. 4, ll. 53–56.

Figure 3 of the ’420 patent depicts an exemplary group overview chart for a group of ten diabetic patients, and is reproduced below.



As shown in Figure 3 above, group overview chart 26 has “ten data points, each data point representing one corresponding patient and indicating the control value calculated for the patient and the time period elapsed since the patient’s most recent collection date,” with each data point “represented on chart 26 by a corresponding icon 66.” *Id.* at col. 7, ll. 14–19; col. 8,

ll. 24–27. According to the '420 patent, viewing such a chart allows a clinician to determine which patients are having difficulty with their condition and require greater attention. *Id.* at col. 8, ll. 28–37.

B. Illustrative Claim

Claim 1 of the '420 patent recites:

1. A method for monitoring a group of patients having a health condition via a computer system, said method comprising:

generating and displaying a chart via a display, said chart having a plurality of data points, wherein each of said data points represents one corresponding patient and indicates at least one value for the one corresponding patient, each data point including an icon, the at least one value being based upon a corresponding set of measurements related to a health condition;

receiving a user input, the user input selecting a data point from the plurality of data points, the data point being associated with a selected patient;

correlating the user-selected data point with patient data for the selected patient associated with the user-selected data point, the patient data including one of: an electronic mail address associated with the selected patient and a telephone number associated with the selected patient; and

transmitting a communication to the selected patient, wherein said communication is transmitted to the selected patient via one of: an electronic mail message and a telephone message,

wherein the system allows the user to monitor the health condition of the plurality of patients via said chart displayed by said system and to proactively initiate said communication with the selected patient via the system by providing said user input to the system.

C. Prior Art

The pending grounds of unpatentability in the instant *inter partes* review are based on the following prior art:

1. U.S. Patent No. 5,331,549, issued July 19, 1994 (Ex. 1002, “Crawford”);
2. U.S. Patent No. 5,471,382, issued November 28, 1995 (Ex. 1003, “Tallman”); and
3. U.S. Patent No. 5,827,180, issued October 27, 1998, continuation of an application filed August 24, 1995 (Ex. 1006, “Goodman”).

D. Pending Grounds of Unpatentability

The instant *inter partes* review involves the following grounds of unpatentability:

References	Basis	Claim(s)
Crawford and Tallman	35 U.S.C. § 103(a)	1
Crawford, Tallman, and Goodman	35 U.S.C. § 103(a)	2–5

Dec. on Inst. 24.

II. ANALYSIS

A. Claim Interpretation

The Board interprets claims of unexpired patents using the “broadest reasonable construction in light of the specification of the patent in which [they] appear[.]” 37 C.F.R. § 42.100(b); *see* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012). There is a “heavy presumption” that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

However, a “claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history.” *Id.* “Although an inventor is indeed free to define the specific terms used to describe his or her invention, this must be done with reasonable clarity, deliberateness, and precision.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Also, we must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (“[L]imitations are not to be read into the claims from the specification.”).

1. Previously Interpreted Terms

In the Decision on Institution, we interpreted various claim terms of the ’420 patent as follows:

Term	Interpretation
“chart”	information arranged in the form of one or more tables, graphs, or diagrams
“icon”	a graphical representation of an underlying function or data
“a group of patients having a health condition”	(preamble term not limiting)

See Dec. on Inst. 8–13. The parties do not dispute these interpretations in their Patent Owner Response and Reply. We do not perceive any reason or evidence that now compels any deviation from these interpretations.

Accordingly, we adopt our previous analysis for purposes of this decision. We also interpret two other terms in claim 1.

2. “Data Point”

The parties do not propose any specific interpretations for the term “data point” in claim 1. In attempting to distinguish one of the prior art references at issue (Crawford), however, Patent Owner argues that each “data point” in claim 1 must be “separate” from its corresponding “icon,” and that the “data point distribution” in the recited chart must be “dynamic” (i.e., data points change location over time). PO Resp. 36–38. Petitioner disagrees with both assertions. Reply 9–11. We conclude that interpretation of “data point” is necessary to resolve the dispute.

Claim 1 recites “generating and displaying a chart via a display, said chart having a plurality of data points, wherein each of said data points represents one corresponding patient and indicates at least one value for the one corresponding patient, each data point including an icon,” and “receiving a user input, the user input selecting a data point from the plurality of data points, the data point being associated with a selected patient.” Thus, from the claim itself, we know that (1) the chart *has* a plurality of data points; (2) each of the data points *represents* a corresponding patient and *indicates* a value for the corresponding patient; (3) each of the data points *includes* an icon; and (4) at least one of the data points is capable of being *selected* via user input.

Figure 3 of the ’420 patent, shown above, depicts group overview chart 26. The Specification describes group overview chart 26 as having “ten data points,” where each data point “represent[s] one corresponding

patient and indicat[es] the control value calculated for the patient and the time period elapsed since the patient's most recent collection date.”

Ex. 1001, col. 7, ll. 12–17; col. 8, ll. 25–27. Each data point is “represented on chart 26 by a corresponding icon 66,” shown as a diamond shape, and icon 66 may change appearance depending on the patient's data (e.g., non-compliant patients shown as “flashing icons” and compliant patients shown as “non-flashing icons”). *Id.* at col. 7, ll. 17–39; col. 8, ll. 24–25 (“Each data point on chart 26 is displayed as a corresponding icon 66.”). A clinician uses a mouse or other pointing device to “select[] patients from chart 26 by clicking the icon corresponding to the patient.” *Id.* at col. 8, ll. 38–42.

Based on how the term “data point” is used in the claims, and the description in the Specification, we conclude that each data point is not simply a location in x-y space on the chart. Some type of additional display characteristic for the data point is required. Otherwise, if the data point was just an intangible location and did not display anything to the user, it would not be possible for the data point to “indicat[e]” a value for the patient, and it would not be possible for the user to “select[]” the data point because the user would not see anything at the location to select.

Further, the display for the data point may be the icon itself. This is consistent with claim 1's recitation that the data point “includ[e]” an icon. We agree with Petitioner that “including” in claim 1 means the same thing as “comprising” and does not require that the data point be completely separate from the icon. Reply 10; *see Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1344–45 (Fed. Cir. 2003) (“comprising” and “including” mean that “the named elements are essential, but other elements may be

added and still form a construct within the scope of the claim”) (citation and internal quotation marks omitted). For example, a claim may recite a piece of furniture, wherein the piece of furniture “comprises” a chair. The piece of furniture may be the chair itself, or it may be the chair and something else, but it does not need to be separate and distinct from the chair. Likewise, the data point may be the icon, or it may be the icon and something else, but it does not need to be separate and distinct from the icon.

Notably, although Patent Owner argues that the “data point” and “icon” in claim 1 must be “separate,” it does not explain how the features are “separate” in the chart shown in Figure 3 of the ’420 patent, or how the Specification otherwise supports such a reading of claim 1. PO Resp. 36–37. Indeed, Patent Owner’s declarant, Yadin David, Ed.D., acknowledged that the diamond shapes shown in Figure 3 of the ’420 patent are both data points and icons. *See* Ex. 1041 at 342:20–343:6. Also, although the data points in the exemplary embodiment shown in Figure 3 of the ’420 patent change location over time as the patients’ data changes, we do not see any requirement in claim 1 or the Specification that data points must change location over time, as Patent Owner suggests. *See* PO Resp. 37–38. Therefore, we do not interpret claim 1 to have either requirement proposed by Patent Owner.²

² At the hearing, Patent Owner cited *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010), where the Federal Circuit held that “[w]here a claim lists elements separately, ‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention” (citations omitted). *See* Ex. 2080 at 63; Tr. 56:10–57:2. *Becton* is inapposite, however, because in that case, the claim at issue recited separately a hinged arm and spring means “connected to” the hinged arm. *Becton*, 616 F.3d at 1254. The claim did not

Applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret “data point” to mean a display of data at a location on the chart.

3. *“The System Allows the User . . . to Proactively Ini[t]iate³ Said Communication With the Selected Patient Via the System by Providing Said User Input to the System”*

Patent Owner argues that claim 1 should be interpreted to require that the communication be “initiated before the patient develops an urgent medical need.” PO Resp. 41 (emphasis omitted). In support of its proposed interpretation, Patent Owner cites three dictionary definitions of the term “proactive,” portions of the Specification of the ’420 patent, and testimony from the parties’ declarants. *Id.* Petitioner disagrees with Patent Owner’s proposed interpretation. Reply 12.

We are not persuaded that the “proactively ini[t]iate” language in claim 1 requires the communication to be initiated before the patient develops an urgent medical need. The claim itself does not recite anything about an urgent medical need or include any language indicating that initiation of the communication should be defined in terms of an urgent medical need. Further, at least one of the dictionary definitions submitted by Patent Owner is broader than the interpretation it seeks, and defines “proactive” as “creating or controlling a situation by taking the initiative *or* anticipating events; ready to take initiative, tending to make things happen.”

recite one structure “comprising” or “including” the other, as is the case here with “data point” and “icon.”

³ We agree with Patent Owner that “iniate” in claim 1 is misspelled, and that the term should be “initiate.” *See* PO Resp. 40 n.1.

Ex. 2013 (emphasis added). Patent Owner’s proposed interpretation reflects the latter meaning of anticipation of a specific event—development of an urgent medical need—but not the former meaning of creating or controlling a situation by taking the initiative. The ordinary and customary meaning of “proactive,” therefore, is broader than what Patent Owner proposes. Finally, the Specification of the ’420 patent does not define “proactively ini[t]iate” or demonstrate a disavowal of the full scope of the term “proactive.” Rather, the only portion of the Specification disclosing proactive communication before a patient develops an urgent medical need describes such communication as an “advantage of the multiple patient monitoring system of the preferred embodiment.” *See* Ex. 1001, col. 8, ll. 59–65.

Applying the broadest reasonable interpretation of the claims in light of the Specification, we interpret “the system allows the user . . . to proactively ini[t]iate said communication with the selected patient via the system by providing said user input to the system” to mean that the system allows the user to control the initiation of the communication to the selected patient by providing the user input on his or her own initiative or in anticipation of an event.

B. Level of Ordinary Skill in the Art

The parties’ declarants apply similar definitions for the level of ordinary skill in the art at the time of the ’420 patent (October 16, 1996, when the parent application of the ’420 patent was filed), and neither party contends that the minor differences between those definitions impact the obviousness analysis. Petitioner’s declarant, Robert T. Stone, Ph.D., testifies that a person of ordinary skill would have had (1) “a bachelor’s

degree in Electrical Engineering or Computer Science, or its equivalent, and at least 2 years of experience with the design and programming of patient monitoring systems,” and (2) “at least 1 year of experience with the design or programming of networked systems.” Ex. 1008 ¶ 22; *see* Pet. 6; Ex. 1022 ¶¶ 19–21. Patent Owner’s declarant, Dr. David, agrees with the first portion of Dr. Stone’s definition, but disagrees as to the second portion, testifying that a person of ordinary skill would not have had experience with the design or programming of networked systems. Ex. 2010 ¶ 24.

Based on our review of the ’420 patent, the types of problems and solutions described in the ’420 patent and cited prior art, and the testimony of the parties’ declarants, we conclude that a person of ordinary skill in the art would have had a bachelor’s degree in electrical engineering or computer science (or its equivalent), and at least two years of experience with the design and programming of patient monitoring systems. *See, e.g.*, Ex. 1001, col. 1, l. 23–col. 2, l. 67 (describing prior art medical monitoring systems that collected data from remote monitoring devices, and stating that the ’420 patent describes “computer systems for managing healthcare”); Ex. 1008 ¶¶ 1–5 (background of Dr. Stone); Ex. 2010 ¶¶ 1–9 (background of Dr. David).

We do not include a requirement of one year of experience with the design or programming of networked systems. Although the challenged claims recite “transmitting a communication” to a patient via “electronic mail message” or “telephone message,” the Specification describes such communications only at a high level of generality. *See, e.g.*, Ex. 1001, col. 4, ll. 50–52 (“Clinic server 12 is coupled to a modem M1 for connecting server 12 to a communication network 34, preferably a public telephone

network or similar data transmission network.”); col. 8, ll. 53–55 (“mail server application 16 transmits each message 78 through network 34 to the corresponding patient”). A person of ordinary skill in the art would have had at least two years of experience with the design and programming of patient monitoring systems, and, therefore, would have had at least some familiarity with the use of networked systems (e.g., to communicate with monitored patients), but may not have had one year of specific experience designing or programming the underlying networked systems that enable electronic mail or telephone message communication with patients.

C. Claim 1

Petitioner argues in its Petition that claim 1 is unpatentable over Crawford and Tallman under 35 U.S.C. § 103(a), relying on the Declaration of Dr. Stone (Ex. 1008) in support. Pet. 19–26, 32–42. We have reviewed the Petition, Patent Owner Response, and Reply, as well as the evidence discussed in each of those papers, and are persuaded, by a preponderance of the evidence, that claim 1 would have been obvious based on the combination of Crawford and Tallman.

1. Crawford

Crawford discloses a “medical monitoring system in which a plurality of vital signs monitors for a plurality of patients provide data on a continuing basis to a central server.” Ex. 1002, Abstract. The system provides an overview display (e.g., a computer touchscreen) showing, for example, a hospital floor plan with room icons. *Id.* at col. 5, ll. 19–23; col. 6, ll. 34–38. Alarms and warnings are displayed whenever a patient’s monitored vital

signs fall outside a range pre-selected by the health care provider. *Id.* at col. 5, ll. 23–37; col. 8, ll. 22–44. Figure 3 of Crawford is reproduced below.

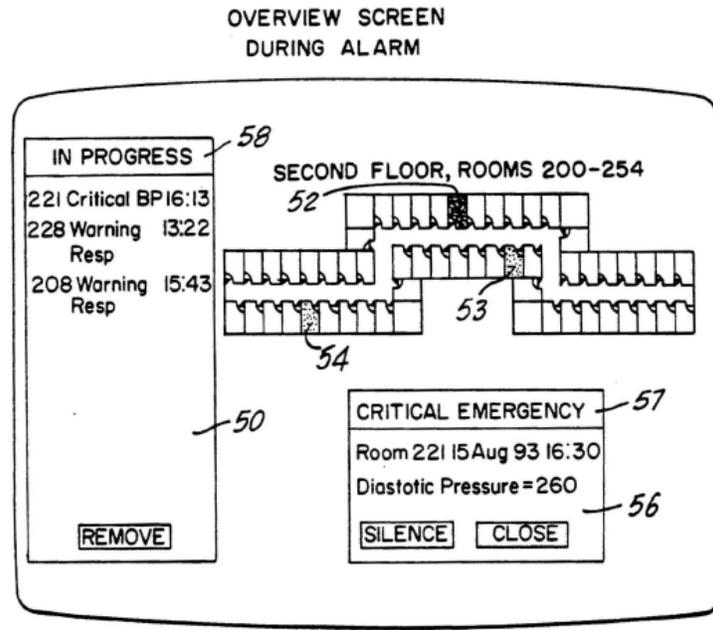


FIG. 3

Figure 3 above depicts Room 221 with a critical emergency and Rooms 208 and 228 with warnings. *Id.* at col. 5, ll. 23–58. The rooms may be colored red, yellow, or green, or shown as flashing, depending on the condition of the patient (red and flashing for critical, yellow for warning, and green for normal). *Id.* at col. 6, ll. 3–18. A user can touch the screen on a particular room to call up information for the particular patient. *Id.* at col. 6, ll. 34–38. The system also can display past vital sign measurements for a patient. *Id.* at col. 2, ll. 34–37; col. 8, ll. 52–62; Fig. 7.

2. Tallman

Tallman discloses a “network management system” where nurses and other health care professionals speak to patients over the telephone using “proprietary information tools . . . to help patients assess their health needs and then select appropriate care.” Ex. 1003, col. 1, ll. 7–18. When a patient calls a nurse, the nurse accesses the patient’s data stored in the system and asks the patient questions. *Id.* at col. 5, ll. 48–54; Fig. 2. The system then makes a determination as to whether the patient is eligible for services and whether the patient requires medical intervention. *Id.* at col. 5, l. 52–col. 6, l. 17. During the course of a patient call, the system displays various screens to the nurse, which may include questions to ask the patient (e.g., Figures 22 and 74) and messages to read to the patient (e.g., Figures 24, 75, and 76), and logs the patient’s responses as entered by the nurse. *Id.* at col. 22, ll. 56–67; col. 23, ll. 44–49. If the patient requires medical intervention, the nurse uses the system to determine what level and type of care is needed, and to help the patient select a health care provider. *Id.* at col. 5, ll. 17–21; col. 6, ll. 23–30. If the patient does not need medical intervention, the nurse uses the system to provide home care instructions and to schedule a follow-up call with the patient if necessary. *Id.* at col. 6, ll. 17–22. Tallman describes specific procedures for performing a callback to the patient and logging the results of the callback. *Id.* at col. 34, l. 38–col. 35, l. 67.

3. Analysis

a. Crawford and Tallman Are Analogous Art

Before turning to Petitioner’s substantive arguments regarding Crawford and Tallman, we must determine whether the references are

analogous art to the '420 patent. “A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention.” *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011). “Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.” *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). “A reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to an inventor’s attention in considering his problem.” *Innovation Toys, LLC v. MGA Entm’t, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011) (citation and internal quotation marks omitted).

Patent Owner does not dispute that Crawford is analogous art, but argues that Tallman is not analogous art under either test. PO Resp. 16–20. The field of endeavor of the '420 patent is using a computer system to monitor a group of medical patients. *See id.* at 2, 17; Reply 2; Ex. 1001, claim 1 (“method for monitoring a group of patients having a health condition via a computer system”); col. 1, ll. 23–26 (stating that the disclosed invention relates to “computer systems for managing healthcare” and “proactively monitoring a group of patients having a chronic disease or ongoing health condition”); Dec. on Inst. 16.

Patent Owner argues that Tallman is outside this field because it relates to providing assistance to individuals “seeking” health care services “before they enter the health care system,” not actively “monitoring” existing patients. PO Resp. 17–18. This argument is not persuasive.

Although Tallman describes situations where an individual makes contact with the system for the first time, it also describes maintaining information about, and communicating with, existing patients. The disclosed network management system includes patient assessment program 17 and patient database 19. Ex. 1003, Fig. 1. An existing patient may contact a nurse through the network management system, “[p]atient information is gathered and eligibility is confirmed at 42 by accessing data from a patient chart at 44,” and the nurse then uses the patient’s information to determine whether the patient requires medical intervention. *Id.* at col. 5, l. 52–col. 6, l. 17; col. 17, ll. 10–12 (describing “how to find a patient’s chart when it already exists in the system”); col. 20, l. 35–col. 21, l. 22 (describing Figure 13, a “Patient Chart window” for “viewing information on file for the patient,” and Figure 14 displaying “Health Information” for the selected patient); *see also* col. 18, l. 38–col. 19, l. 13 (describing actions to be taken “[i]f the patient requesting services has not used the system before” or “[i]f the patient has used the system before”). Patent Owner and Dr. David also acknowledge that the system disclosed in Tallman is used by individuals who are not yet patients as well as existing patients. *See* Ex. 1041 at 423:22–424:25; Tr. 37:1–8. Thus, Tallman is from the same field of endeavor as the ’420 patent.

Tallman also is reasonably pertinent to the particular problems addressed by the ’420 patent, including those associated with “effectively managing the medical priorities of [a group of] patients.” *See* Ex. 1001, col. 1, l. 41–col. 2, l. 12. Patent Owner argues that the named inventor of the ’420 patent was concerned with managing the medical needs of a group of patients who have “already” entered the health care system and been diagnosed, whereas Tallman is concerned with managing access to health

care providers “before” someone becomes a patient. PO Resp. 18–20. Again, Patent Owner reads Tallman too narrowly, as it relates to assessing and managing the medical conditions of existing patients as well as new patients, for the reasons explained above. Tallman, therefore, is reasonably pertinent to the problems associated with effectively managing the medical needs of a group of patients with health conditions.

Accordingly, we are persuaded that Crawford and Tallman are analogous art to the ’420 patent.

b. Crawford and Tallman Teach Every Limitation of Claim 1

Petitioner has presented evidence showing that Crawford and Tallman teach every limitation of claim 1. Specifically, Petitioner asserts that Crawford teaches a medical monitoring system for a group of patients that generates and displays a “chart” via a “display” (i.e., the overview display shown in Figure 3), the chart having a plurality of “data points” each representing one patient and indicating a value for the patient (e.g., a critical or warning situation) based on measurements for the patient, with each data point having an “icon” (i.e., image of a room). Pet. 32–35 (citing Ex. 1002, col. 3, ll. 38–43; col. 5, ll. 38–51; col. 8, ll. 11–16). Petitioner further contends that Crawford teaches receiving a “user input” selecting one of the data points (i.e., user selection by touching the screen or using the keyboard) and correlating the user-selected data point with “patient data” (e.g., patient name or ailment). *Id.* at 36–39 (citing Ex. 1002, col. 6, ll. 34–38).

Petitioner relies on Tallman as teaching correlation with a particular type of patient data, namely the “telephone number associated with the selected patient,” as recited in claim 1. *Id.* at 39–40 (citing Ex. 1003,

Figs. 7, 12, 13, 37–39). Petitioner also relies on Tallman as teaching the limitation of “transmitting a communication to the selected patient” via a “telephone message,” where the communication is “proactively ini[t]iate[d].” *Id.* at 40–42 (citing Ex. 1003, Figs. 6, 24; col. 34, ll. 40–54). Petitioner’s analysis, supported by the testimony of Dr. Stone, is persuasive. *See* Ex. 1008 ¶¶ 26–50.

Patent Owner makes four arguments with respect to claim 1. First, Patent Owner argues that Crawford’s overview display does not have a plurality of “data points” that are separate from “icons.” PO Resp. 36–38. As explained above, we do not agree with Patent Owner that the claim requires separate data points and icons, and instead interpret “data point” to mean a display of data at a location on the chart. *See supra* Section II.A.2. Petitioner has shown sufficiently that Crawford’s overview display is a chart having data points, each representing one patient and indicating a value for the patient (e.g., a critical or warning situation) based on measurements for the patient, with each data point having an icon (i.e., image of a room shown in different colors and flashing states depending on the value for the patient), as recited in claim 1. *See* Pet. 33–35 (citing Ex. 1002, col. 5, ll. 38–51); Ex. 1008 ¶¶ 29–30.

Second, Patent Owner argues that Crawford’s overview display does not have a plurality of “data points” because the floor arrangement in Crawford has “stationary patient rooms.” PO Resp. 37–38. Patent Owner’s argument is premised on its contention that the claim requires “dynamic” data point distribution. *Id.* We do not agree that the claim should be interpreted in that manner, for the reasons explained above. *See supra* Section II.A.2.

Third, Patent Owner argues that Tallman does not teach “transmitting a communication to the selected patient” via “a telephone message,” as recited in claim 1. PO Resp. 38–40. Patent Owner contends that the claim requires an “automated telephone message” that exists prior to being transmitted, which allegedly is different from the callback feature in Tallman where the nurse calls a patient and reads a message over the telephone. *Id.* (citing Ex. 2010 ¶¶ 151–52, 184). Claim 1, however, does not recite that the telephone message is “automated,” and we see no reason why a human being calling a patient over a telephone network and reading a message would not amount to “transmitting a communication to the selected patient” via “a telephone message.” *See* Ex. 1041 at 407:12–408:14 (Dr. David acknowledging that reading the message over the telephone would constitute transmitting a communication to a patient via a telephone message). Moreover, even if claim 1 required a pre-existing message, Tallman teaches such a message that is displayed to the nurse and read to the patient over the telephone. *See* Pet. 40–41; Ex. 1003, col. 34, l. 38–col. 35, l. 37 (describing callback procedures); col. 76, l. 63–col. 78, l. 32 (listing exemplary pre-existing messages); Figs. 24, 75 (displaying a “Message to Patient”). We are persuaded that Tallman teaches the “transmitting” step of claim 1.⁴

Fourth, Patent Owner argues that the user in Tallman does not “proactively ini[t]iate said communication with the selected patient via the system by providing said user input to the system,” as recited in claim 1.

⁴ We also note that the ’420 patent acknowledges that the “programming of a mail merge application to generate customized [electronic mail] messages” and the “programming of an automated call processing application to generate customized [telephone] messages” were “well known in the art” prior to the ’420 patent. Ex. 1001, col. 7, ll. 55–57; col. 9, ll. 15–17.

PO Resp. 40–42. Patent Owner’s argument is premised on its proposed interpretation of the “proactively ini[tiate]” claim language as requiring initiation before the patient develops an urgent medical need. *Id.* We do not agree with that interpretation for the reasons stated above, and instead interpret the limitation to mean that the system allows the user to control the initiation of the communication to the selected patient by providing the user input on his or her own initiative or in anticipation of an event. *See supra* Section II.A.3. Tallman teaches the limitation because the nurse, on his or her own initiative, causes the callback telephone call to be placed to the patient. *See* Pet. 41–42; Reply 12. The Tallman system allows the nurse to “[s]elect the appropriate callback item from the Worklist window” (as shown in Figure 37), “[c]lick the Perform button to open the Perform Callback window,” and “[d]ial the Caller Phone number shown in the Perform Callback window” (as shown in Figure 39). Ex. 1003, col. 34, l. 38–col. 35, l. 67.

Thus, we are persuaded that Crawford and Tallman teach every limitation of claim 1.

c. A Person of Ordinary Skill in the Art Would Have Had Reason to Combine the Teachings of Crawford and Tallman

Having found that Crawford and Tallman teach all of the limitations of claim 1, we turn to whether a person of ordinary skill in the art would have had reason to combine the teachings of the references to achieve the claimed method. We are guided by the Supreme Court’s decision in *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). “Section 103(a) forbids issuance of a patent when ‘the differences between the subject matter sought

to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *Id.* at 405. “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *Id.* at 417 (citation omitted). A determination of obviousness, though, requires identifying “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* at 417–18 (citation and internal quotation marks omitted).

In its Petition, Petitioner explains in detail why it would have been obvious to a person of ordinary skill in the art to combine the teachings of Crawford and Tallman to achieve the method of claim 1, relying on the testimony of Dr. Stone in support. *See* Pet. 19–26. For example, Petitioner argues that both references relate to monitoring a patient population and, because Crawford only monitors continuously-connected patients, a person of ordinary skill in the art would have been “motivated to look to medical informatics systems providing periodic or intermittent patient-caregiver contact, such as in Tallman, to find solutions to such shortcomings.” *Id.* at 19–20 (citing Ex. 1008 ¶ 49). Petitioner further contends that a “graphical display” of the type disclosed in Crawford would have provided an “expeditious method of facilitating . . . communications” between a patient and health care provider, as disclosed in Tallman. *Id.* at 26. Dr. Stone similarly testifies that “[i]t would have been advantageous to combine the two systems to account for a flow of information from pre-admission through admission and treatment,” and that it would have been obvious to

incorporate Tallman’s correlation between the selection of a patient and the patient’s contact information (e.g., telephone number) because such information was “readily available.” Ex. 1008 ¶¶ 48, 50. Dr. Stone opines as to these and other reasons why a person of ordinary skill in the art would have had reason to combine the teachings of the references to arrive at the claimed methods. *See, e.g., id.* ¶¶ 47–50. Petitioner’s analysis, supported by the testimony of Dr. Stone, is persuasive.

Patent Owner contends that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Crawford and Tallman because (1) each reference discloses a “complete” system; (2) the references are in different fields, address different problems, and disclose contrary solutions; (3) the references themselves do not suggest that they could be combined; (4) Crawford teaches away from the use of patient contact information and telephone communication with a selected patient, the features for which Petitioner relies on Tallman; and (5) Dr. Stone applied an improper methodology in his obviousness analysis. PO Resp. 20–26, 31–35.

First, Patent Owner contends that Crawford and Tallman disclose “complete” systems and do not provide any reason themselves for modifying the systems with the teachings of another reference. PO Resp. 24 (citing Ex. 2010 ¶¶ 123–27). Patent Owner, however, does not identify any authority (and we are aware of none) for the proposition that a reference somehow must be incomplete to be combinable with another reference under 35 U.S.C. § 103(a). Petitioner has explained sufficiently why a person of ordinary skill in the art would have understood it to be beneficial to incorporate the patient correlation and communication features of Tallman

into the system of Crawford, even though the systems disclosed in both references are capable of operating on their own. *See* Pet. 19–26 (citing Ex. 1008 ¶¶ 47–50).

Second, Patent Owner argues that Crawford and Tallman are in different fields, address different problems, and disclose contrary solutions, such that a person of ordinary skill in the art would not have been motivated to combine their teachings. *See* PO Resp. 24–25, 32–33 (citing Ex. 2010 ¶¶ 128–35). According to Patent Owner, Crawford is in the “field of supervisory systems that monitor vital signs of patients,” whereas Tallman is in the “field of network management systems for assisting health plan beneficiaries who are seeking health care services.” *Id.* at 24. Also, Crawford addresses the problem of monitoring for “emergency situations” by monitoring patient conditions in real time, whereas Tallman addresses the problem of “managing access to health care providers” by providing tools to handle incoming calls from patients. *Id.* at 25. For similar reasons, Patent Owner asserts that Tallman “teaches away” from any combination with Crawford because of their allegedly different fields, problems, and solutions. *Id.* at 25–26.

Patent Owner overstates the differences between the references and fails to account for their many common features. As explained above, we are persuaded that, like the ’420 patent, both references are in the same general field of using a computer system to monitor a group of medical patients. *See supra* Section II.C.3.a. Both references describe a central computer system for maintaining, displaying, and communicating information about existing patients who may be located at their homes or in a health care facility, and for taking some action with respect to a selected

patient. *See* Pet. 19–20, 22; Reply 4 (citing Ex. 1022 ¶¶ 98–108); Ex. 1002, col. 5, l. 19–col. 6, l. 38; Ex. 1003, col. 5, l. 52–col. 6, l. 17. Both references address patients in both emergency and non-emergency situations. *See* Reply 4–5; Ex. 1002, col. 6, ll. 3–26 (rooms displayed in red, yellow, or green); Ex. 1003, col. 12, l. 28–col. 13, l. 25; col. 14, ll. 29–34. Thus, we are not persuaded that the systems of Crawford and Tallman are so different that a skilled artisan would not have thought to combine them. Nor do we see any basis in the record to conclude that incorporating the patient correlation and communication features of Tallman into the system of Crawford, as Petitioner and Dr. Stone propose, would have been uniquely challenging or otherwise beyond the level of skill of an ordinarily skilled artisan. *See KSR*, 550 U.S. at 416, 421; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161–62 (Fed. Cir. 2007).

Third, Patent Owner argues that the references themselves do not suggest that they could be combined. PO Resp. 33–34 (citing Ex. 2010 ¶¶ 145–49). Patent Owner cites the following disclosure from Tallman to show that Tallman allegedly distinguishes managing health care access for a new patient from systems like Crawford that involve diagnosing and monitoring existing patients:

A variety of approaches are also known in the a[rt] for systems and processes that automate medical diagnosis. For example, U.S. Pat. No. 5,263,123 discloses an expert system using a form of fuzzy logic for medical diagnosis. However, it should be recognized that diagnosis is a different problem than managing access to medical providers who can then make a diagnosis and institute effective treatment.

Ex. 1003, col. 1, l. 62–col. 2, l. 1; *see* PO Resp. 33 (citing Ex. 2010 ¶ 147). Again, Patent Owner does not account for the fact that Tallman expressly

teaches communicating with existing patients (as well as new patients). *See supra* Section II.C.3.a. Further, as Dr. Stone points out, Tallman teaches communicating information about the diagnosis and treatment of a patient. Ex. 1022 ¶ 89 (citing Ex. 1003, Figs. 2, 4A, 4E, and 76 disclosing “instructions” for a patient with a back injury).

We also note that an obviousness “analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418. Therefore, Patent Owner’s argument that Petitioner’s proffered rationales for the combination fail because neither Crawford nor Tallman teaches explicitly that they could be combined with other teachings is unpersuasive.

Fourth, Patent Owner argues that Crawford teaches away from the use of patient contact information and telephone communication with a selected patient. PO Resp. 34–35 (citing Ex. 2010 ¶¶ 150–55). Patent Owner cites the “Dial-out” button in Crawford, which is used to communicate with health care professionals, not an individual patient. *Id.* at 35. Further, according to Patent Owner, because the patients in Crawford are located in the same facility as the health care professional viewing the overview display, there would be no need to correlate the selection of a patient with the patient’s contact information or to send a communication, such as a telephone message, to the patient. *Id.* As Petitioner points out, though, Crawford is not limited to use at a health care facility, and expressly contemplates using the system to monitor patients at their homes as well. *See* Reply 5; Ex. 1002, col. 1, ll. 6–8 (“a supervisory system that monitors the vital signs of patients at home or in a health-care facility”); col. 3,

ll. 59–60. We agree with Petitioner and Dr. Stone that a person of ordinary skill in the art would have found it desirable to incorporate the patient correlation and communication features of Tallman into the system of Crawford, particularly when the monitored patients are located remotely in their homes.

Fifth, Patent Owner argues that Dr. Stone’s obviousness analysis is improper because he “used the claims of the ’420 Patent as ‘a template’ to try and fit combinations of references into the claims” and “used the teachings of the ’420 Patent to identify the goals and motivations for combining the prior art.” PO Resp. 21–23 (citing Ex. 2015 at 84:18–85:4, 313:1–20). According to Patent Owner, Dr. Stone’s analysis is based on improper hindsight reasoning. *Id.* “Any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from applicant’s disclosure, such a reconstruction is proper.” *In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971). Patent Owner does not show sufficiently that Dr. Stone’s analysis relies on knowledge that was beyond the level of ordinary skill in the art at the time of the ’420 patent. For example, Dr. Stone relies on Crawford’s disclosure of a “chart” having “data points” including “icons,” and on Tallman’s disclosure of “transmitting a communication” to a selected patient, and explains why he believes a person of ordinary skill in the art would have combined those teachings based on the disclosures of the references themselves. *See* Ex. 1008 ¶¶ 47–50. We do not see, and Patent Owner does not assert or demonstrate persuasively, how these disclosures

(which were not gleaned from the '420 patent Specification) would have been beyond the level of ordinary skill in the art.

Accordingly, we are persuaded that Crawford and Tallman teach all of the limitations of claim 1, and that a person of ordinary skill in the art would have had reason to combine their teachings to achieve the recited method.

d. Secondary Considerations of Nonobviousness

As part of our obviousness analysis, we consider the evidence and arguments submitted by Patent Owner regarding secondary considerations of nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). In particular, Patent Owner argues that commercial success, long-felt need, industry praise, teaching away by others, and copying demonstrate that the challenged claims would not have been obvious to a person of ordinary skill in the art.⁵ PO Resp. 26–31. In support of its assertions, Patent Owner cites the testimony of Dr. David. *Id.* (citing Ex. 2010 ¶¶ 74–106).

i. Commercial Success

Patent Owner argues that the “Health Buddy” remote health monitoring system, released in 1999 by Health Hero (Patent Owner’s predecessor company), was commercially successful. PO Resp. 27–28. According to Patent Owner, the device was used in a successful pilot program with the U.S. Department of Veterans Affairs (“VA”), and

⁵ The parties refer to the challenged claims collectively in their arguments regarding secondary considerations, and we do the same. *See* PO Resp. 26–31; Reply 6–8.

afterwards Health Hero “sold many tens of thousands of Health Buddy devices.” *Id.*

Evidence of commercial success, however, “is only significant if there is a nexus between the claimed invention and the commercial success.”

Ormco Corp. v. Align Tech., Inc., 463 F.3d 1299, 1311–12 (Fed. Cir. 2006).

To establish a proper nexus between a claimed invention and the commercial success of a product, a patent owner must offer “proof that the sales [of the allegedly successful product] were a direct result of the unique

characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.”

In re Huang, 100 F.3d 135, 140 (Fed. Cir. 1996). In addition, “if the commercial success is due to an unclaimed feature of the device,” or “if the feature that creates the commercial success was known in the prior art, the success is not pertinent.” *Ormco*, 463 F.3d at 1312; *see also In re Kao*, 639 F.3d 1057, 1070 (Fed. Cir. 2011) (requiring a determination of “whether the commercial success of the embodying product resulted from the merits of the claimed invention as opposed to the prior art or other extrinsic factors”). If a patent owner is able to show a sufficient nexus, “the burden shifts to the challenger to prove that the commercial success is instead due to other factors extraneous to the patented invention, such as advertising or superior workmanship.” *J.T. Eaton & Co., Inc. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997).

Patent Owner has not established a sufficient nexus between the claimed methods and the alleged commercial success of the Health Buddy. Patent Owner argues that the success of the Health Buddy was “directly attributable to the invention of the ’420 Patent,” and identifies the “ability to

monitor many patients at once and highlight higher risk patients” in particular as the reason for that success. PO Resp. 28. Dr. David testifies that media coverage emphasized “the simplicity of the product and the fact that it provided a simple set of questions that could be changed by a health care provider to take into account the needs of a particular patient through the ‘Care Composer’ feature,” as well as “the ability of health care providers to quickly distinguish between patients that were within prescribed guidelines and patients that were not . . . through the Health Buddy’s ‘Care Director’ features.” Ex. 2010 ¶ 86. According to Dr. David, the latter ability is the “group overview feature claimed by the ’420 Patent.” *Id.*

Patent Owner and Dr. David, however, do not provide any analysis of how the Health Buddy allegedly embodied the challenged claims, or explain in any detail why it was the unique characteristics of the *claimed* methods that drove sales. For example, claim 1 of the ’420 patent recites “receiving a user input . . . selecting a data point . . . associated with a selected patient,” “correlating the user-selected data point with patient data for the selected patient associated with the user-selected data point, the patient data including” an electronic mail address or telephone number of the selected patient, and “transmitting a communication to the selected patient” via electronic mail message or telephone message. Patent Owner does not point to evidence in the record showing that the Health Buddy performed these steps. Dr. David simply states that he reviewed various materials and spoke with personnel of Patent Owner, and “understand[s]” that the Health Buddy “practiced each of the challenged claims.” Ex. 2010 ¶¶ 71–73. Dr. David does not provide any analysis to support that conclusion, and acknowledged during his deposition that his conversations with Patent Owner’s personnel

did not involve any discussion of the challenged claims. *See* Ex. 1041 at 244:16–246:3. Further, to the extent Dr. David identifies a general “group overview feature” allegedly recited in the claims, he does not identify particular claim language corresponding to that feature or explain how general discussions of patient monitoring equate with any particular limitation(s) of the claims. *See* Ex. 2010 ¶ 86 (citing Ex. 2026, which states that “Care Director allows authorized medical staff to view . . . information on groups of patients . . . through graphic reports and detailed data displays”).

Any commercial success of the Health Buddy is only relevant if the Health Buddy actually was used to practice the methods recited in the challenged claims. *See In re DBC*, 545 F.3d 1373, 1384 (Fed. Cir. 2008) (finding no nexus absent evidence that “the driving force behind [the allegedly successful product’s sales] was the *claimed* combination”) (emphasis added); *Ormco*, 463 F.3d at 1311–12 (requiring a “nexus between the *claimed* invention and the commercial success”) (emphasis added); *Huang*, 100 F.3d at 140 (requiring proof that sales were a “direct result of the unique characteristics of the *claimed* invention”) (emphasis added). Patent Owner has not provided sufficient evidence to show that was the case. Accordingly, the alleged commercial success of the Health Buddy does not support a conclusion of nonobviousness of the claims.

ii. Long-Felt Need

Patent Owner argues that “[t]here was and is a long-felt need in the industry for remote patient monitoring systems such as the Health Buddy,” and that the Health Buddy improved on existing systems in various ways.

PO Resp. 28–29. To support a conclusion of nonobviousness, an alleged long-felt need must have been a persistent one that was recognized by those of ordinary skill in the art, must not have been satisfied by another before the challenged patent, and must have been satisfied by the claimed invention. *See Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1332–33 (Fed. Cir. 2009); *Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988).

Patent Owner does not explain sufficiently why there was a long-felt need to solve a particular problem that others recognized but were unable to meet. As Patent Owner acknowledges, other remote patient monitoring systems existed prior to the Health Buddy. PO Resp. 28–30. Even assuming that the Health Buddy represented an improvement over those systems, that does not mean automatically that there was a recognized long-felt, but unmet, need in the art. Further, the evidence cited by Patent Owner and Dr. David pertains only to the Health Buddy itself and does not show recognition of a particular need *prior to* the Health Buddy. *See id.* (citing Exs. 2032, 2033, 2042); Ex. 2010 ¶¶ 89–94 (citing Exs. 2026, 2032, 2033, 2059); *Perfect Web*, 587 F.3d at 1332–33 (“[L]ong-felt need is analyzed as of the date of an articulated identified problem and evidence of efforts to solve that problem.”) (citation and internal quotation marks omitted). Finally, Patent Owner recognizes that there still “is” a need in the industry for “remote patient monitoring systems,” and does not show sufficiently that the ’420 patent actually satisfied the alleged need. *See* PO Resp. 28. Thus, Patent Owner’s evidence of long-felt need is not persuasive.

iii. Industry Praise

Patent Owner argues that the Health Buddy received “great praise,” citing two television news segments and various written publications. PO Resp. 29 (citing Ex. 2010 ¶¶ 95–99). Patent Owner contends that the industry praise “highlighted the monitoring advantages conferred by the group overview invention” of the ’420 patent. *Id.* As with commercial success, however, evidence of industry praise is only relevant when it is directed to the merits of the invention claimed. *See Ormco*, 463 F.3d at 1311–12. Patent Owner cites a general “group overview” feature, but does not tie the discussion in the cited materials to any particular limitation(s) of the challenged claims. Dr. David also cites numerous materials praising the Health Buddy in general, rather than praise due to specific features that are present in the claims. *See* Ex. 2010 ¶¶ 95–99 (describing, for example, awards won by the Health Buddy). Thus, Patent Owner has not established a sufficient nexus with the claimed methods, and industry praise of the Health Buddy does not support a conclusion of nonobviousness of the claims.

iv. Teaching Away by Others

Patent Owner argues that there were other systems available when the Health Buddy was released that used “personal computers, or prior art methods, such as hospital initiated phone calls or patient diaries.” PO Resp. 30 (citing Ex. 2010 ¶¶ 100–101). According to Patent Owner, the Health Buddy was different from those systems because it had a “very simplified four-button design” and “case manager interface” using “scripted question[s].” *Id.* We are not persuaded that the mere existence of

alternatives in the marketplace is a secondary consideration of nonobviousness,⁶ however, and Patent Owner does not explain sufficiently why the cited alternatives would have taught away from the claimed method. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (“[t]he prior art’s mere disclosure of more than one alternative does not constitute a teaching away . . . because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed”). Moreover, any difference between the Health Buddy and other systems would be immaterial because the challenged claims do not require a four-button design or scripted questions, which Patent Owner cites as the allegedly distinguishing features of the Health Buddy. Again, what matters when considering secondary considerations of nonobviousness is what is actually claimed. Patent Owner’s arguments are not directed to the challenged claims and are not persuasive.

v. Copying

Patent Owner argues that, as a result of the Health Buddy’s initial success, the VA “codified” in a request for proposal (“RFP”) various features of the Health Buddy, including “the requirement that a case manager be able to view many patients at once in a chart with high risk patients highlighted by the system.” PO Resp. 30–31 (citing Ex. 2010 ¶¶ 102–106). Patent Owner infers that other companies, such as Viterion,

⁶ Failure of others can be a secondary consideration of nonobviousness, but Patent Owner does not argue that any other system was a failure. *See Graham*, 383 U.S. at 17–18.

Inc. and Advanced Telehealth, Inc., copied the Health Buddy because they sold systems to the VA that complied with the RFP. *Id.*

Patent Owner's arguments regarding copying are not persuasive. "[C]opying requires evidence of efforts to replicate a specific product." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010). Patent Owner and Dr. David do not provide any analysis or explanation of how other companies allegedly copied the Health Buddy system. Indeed, Dr. David admitted that he never analyzed what other companies provided to the VA. *See* Ex. 1041 at 177:21–25. Dr. David only states that the personnel of Patent Owner he spoke with "recalled" competing products, such as "the Viterion VT100 device," that complied with the RFP. Ex. 2010 ¶¶ 105–106. There is no evidence in the record, however, as to how "the Viterion VT100 device" worked. Dr. David also does not mention any product of the other company cited in the Patent Owner Response, Advanced Telehealth, Inc. Thus, Patent Owner has not shown sufficiently that anyone copied the Health Buddy system. Further, even if it was proper to infer copying merely from compliance with the RFP, Dr. David admitted that the RFP could be satisfied by a system that does not practice the methods recited in the challenged claims. *See* Ex. 1041 at 212:21–213:3. Patent Owner has not shown proof of copying that would support a conclusion of nonobviousness of the challenged claims.

e. Conclusion

Based on all of the evidence of record, including evidence of secondary considerations of nonobviousness submitted by Patent Owner, we

determine, by a preponderance of the evidence, that claim 1 would have been obvious based on Crawford and Tallman under 35 U.S.C. § 103(a).

D. Claims 2–5

Petitioner argues in its Petition that claims 2–5 are unpatentable over Crawford, Tallman, and Goodman under 35 U.S.C. § 103(a), again relying on Dr. Stone’s Declaration (Ex. 1008) in support. Pet. 31–32, 42–46.

We have reviewed the Petition, Patent Owner Response, and Reply, as well as the evidence discussed in each of those papers, and are persuaded, by a preponderance of the evidence, that claims 2–5 would have been obvious based on the combination of Crawford, Tallman, and Goodman.

1. Goodman

Goodman discloses a system for monitoring the health of a patient in which a third party host computer is in communication with a health care provider’s computer and a patient’s computer. Ex. 1006, Abstract; col. 2, ll. 44–51; Fig. 1. In one embodiment, the host computer receives a treatment plan for a patient from the health care provider and generates an algorithm based on the treatment plan. *Id.* at col. 2, ll. 54–57. The algorithm is programmed into a message device in possession of the patient. *Id.* at col. 2, ll. 49–58. The message device prompts the patient to measure and enter physiological data as dictated by the treatment plan. *Id.* at col. 2, ll. 58–61. Goodman further discloses that, “[i]n place of the host computer 30, one or more employees/representatives of the third party 3 may collect information, generate and maintain a record of information pertaining to a patient’s health

and transmit information either directly or indirectly to the patient 2 . . . via telephone [or] electronic mail.” *Id.* at col. 7, l. 66–col. 8, l. 5.

2. Analysis

Petitioner relies on Crawford and Tallman as teaching all of the limitations of independent claim 1, relies on Goodman as teaching the additional limitations of dependent claims 2–5, and provides reasons why a person of ordinary skill in the art would have combined the teachings of Crawford and Tallman with those of Goodman, supported by the testimony of Dr. Stone. *See* Pet. 31–32, 42–46; Ex. 1008 ¶¶ 65–71. We first address whether Goodman teaches the additional limitations of each claim and then turn to whether it would have been obvious to make the asserted combination. There is no dispute that Goodman is analogous art to the ’420 patent.

a. Crawford, Tallman, and Goodman Teach Every Limitation of Claims 2 and 3

Claim 2 recites that “said electronic mail message includes information related to a most recent set of measurements of the selected patient.” Claim 3 recites the same limitation with respect to “said telephone message.” At the outset, we note that independent claim 1 recites transmitting a communication “via one of: an electronic mail message and a telephone message,” and, therefore, is met if *either* type of message is sent. Even assuming that the particular type of message recited in each of claims 2 and 3 is required, though, we are persuaded that the claims would have been obvious over the combination of Crawford, Tallman, and Goodman.

Petitioner relies on the following disclosure from Goodman as teaching the limitations of claims 2 and 3:

In place of the host computer 30, one or more employees/representatives of the third party 3 *may collect information*, generate and maintain a record of information pertaining to a patient's health and *transmit information either directly or indirectly to the patient 2*, health care provider 4, or other location *via telephone*, facsimile transmission, *electronic mail*, or other communication means.

Ex. 1006, col. 7, l. 66–col. 8, l. 5 (emphasis added); *see* Pet. 42–43. Similar to its argument with respect to claim 1, Patent Owner argues that claims 2 and 3 require a pre-existing message, not human communication to the patient. PO Resp. 54, 56. We disagree with Patent Owner's reading of claim 1 for the reasons explained above. *See supra* Section II.C.3.b.

Patent Owner also contends that Goodman does not teach a message that includes “information related to a most recent set of measurements of the selected patient.” PO Resp. 53–57 (citing Ex. 2010 ¶¶ 242, 252). This argument is not persuasive, given the context of the Goodman disclosure above. Specifically, Goodman discloses that host computer 30 receives patient monitoring data from medical device 70, analyzes the data, and generates reports “indicative of the patient's well-being” and how the patient is responding to the prescribed therapy. Ex. 1006, col. 7, ll. 22–59. The portion of Goodman quoted above discloses that the information collection and recording may be “[i]n place of the host computer 30.” *Id.* at col. 7, l. 66–col. 8, l. 5. Thus, we agree with Petitioner that the message to the patient would comprise the same type of information regarding the patient's well-being and efficacy of treatment, which would be “information related to a most recent set of measurements of the selected patient.” *See* Reply 14.

We are persuaded that Crawford, Tallman, and Goodman teach every limitation of claims 2 and 3.

b. Crawford, Tallman, and Goodman Teach Every Limitation of Claims 4 and 5

Claim 4 recites that “said electronic message is automatically transmitted upon said correlating by the system of said user-selected data point with said patient data for the selected patient associated with the user-selected data point.” Claim 5 recites the same limitation with respect to “said telephone message.” Again, although independent claim 1 requires *either* of the two types of messages, we are persuaded that claims 4 and 5 would have been obvious even if the particular type of message recited in the claims is required.

Petitioner relies on the same disclosure of Goodman cited above for the limitations of claims 4 and 5, and asserts that it would have been obvious to combine the teachings of the three references. Pet. 31–32, 43–46. Patent Owner repeats its arguments for claims 1–3, which we do not find persuasive.⁷ See PO Resp. 57–59. We are persuaded that Crawford, Tallman, and Goodman teach every limitation of claims 4 and 5.

⁷ With respect to the requirement of “automatic[]” transmission of the message in claims 4 and 5, we again note that the ’420 patent acknowledges that the “programming of an *automated* call processing application to generate customized [telephone] messages” was “well known in the art” prior to the ’420 patent. Ex. 1001, col. 9, ll. 15–17 (emphasis added).

c. A Person of Ordinary Skill in the Art Would Have Had Reason to Combine the Teachings of Crawford, Tallman, and Goodman

In its Petition, Petitioner explains in detail why it would have been obvious to a person of ordinary skill in the art to combine the teachings of Crawford, Tallman, and Goodman to achieve the methods of claims 2–5, relying on the testimony of Dr. Stone in support. Specifically, Petitioner asserts that a person of ordinary skill in the art would have recognized that the system of Tallman, “which selects predetermined messages to be conveyed to a patient in response to patient-communicated conditions (i.e., measurements) and assists in automating contact with such patients,” could be modified to include the type of communication described by Goodman “to further automate such correspondence with a patient, freeing health professionals to perform other skill-based task[s] as opposed to simply reading a predefined message.” Pet. 31–32 (citing Ex. 1008 ¶¶ 68, 71). Petitioner’s analysis is persuasive.

Similar to its arguments regarding the combination of Crawford and Tallman, Patent Owner contends that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Goodman with those of Crawford and Tallman because (1) each reference discloses a “complete” system; (2) Tallman and Goodman are in different fields, address different problems, and disclose contrary solutions, and Tallman “teaches away” from any combination with Goodman, because Tallman relates to individuals seeking health care services and Goodman relates to existing patients; (3) the references themselves do not suggest that they could be combined; and (4) Dr. Stone applied an improper methodology in his obviousness analysis.

PO Resp. 42–52. We disagree with these arguments for reasons similar to those explained above. *See supra* Section II.C.3.c.

Regarding the combination with Goodman specifically, Patent Owner contends that Goodman is “incompatible” with the system of Crawford because Goodman’s use of a third party facility between a patient and his or her health care provider would “inject[] undesired latency into presentation of patient vital signs data and unacceptably postpone exigency detection and the response to same.” PO Resp. 46–47 (citing Ex. 2010 ¶¶ 207–11). Goodman is “incompatible” with the system of Tallman for similar reasons according to Patent Owner. *Id.* at 47–48 (citing Ex. 2010 ¶¶ 211–14). We do not agree. Petitioner relies on Crawford and Tallman for the underlying functionality of receiving health data for patients, and relies on Goodman only for its specific capability of communicating in a certain manner with the patient. *See* Pet. 31–46. We do not see, and Patent Owner does not explain, why the structure that allegedly introduces delay in Goodman—the third party facility—necessarily would be included in a combined system, given that Crawford and Tallman already provide the necessary structure. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”).

Further, Patent Owner’s contention is not that it would have been impossible for a person of ordinary skill in the art to incorporate the communication capability of Goodman into the combined system of Crawford and Tallman, but rather that a person of ordinary skill in the art

would have been dissuaded from doing so because communication would be unacceptably slow. Patent Owner and Dr. David do not explain sufficiently why that would be the case, or provide evidentiary support for what a skilled artisan would have considered unacceptable at the time. *See* PO Resp. 46–48; Ex. 2010 ¶¶ 209, 213. Thus, Patent Owner does not rebut persuasively Petitioner’s proffered rationale for combining the references.

Accordingly, we are persuaded that Crawford, Tallman, and Goodman teach all of the limitations of claims 2–5, and that a person of ordinary skill in the art would have had reason to combine their teachings to achieve the recited methods.

d. Conclusion

With respect to secondary considerations of nonobviousness, Patent Owner’s arguments are the same for all of the challenged claims, and the parties do not make any separate arguments regarding claims 2–5. *See* PO Resp. 26–31; Reply 6–8. The evidence and arguments submitted by Patent Owner do not outweigh the evidence of obviousness. *See supra* Section II.C.3.d. Thus, based on all of the evidence of record, we determine, by a preponderance of the evidence, that claims 2–5 would have been obvious based on Crawford, Tallman, and Goodman under 35 U.S.C. § 103(a).

E. Motions to Exclude

The party moving to exclude evidence bears the burden of proof to establish that it is entitled to the relief requested—namely, that the material

sought to be excluded is inadmissible under the Federal Rules of Evidence. See 37 C.F.R. §§ 42.20(c), 42.62(a).

1. Petitioner's Motion to Exclude

Petitioner moves to exclude Exhibits 2016–2063 and paragraphs 68–106 of Dr. David's Declaration (Ex. 2010) under Federal Rule of Evidence 402 on the basis that Patent Owner “failed to establish a nexus between the alleged evidence and the claimed features.” Pet. Mot. to Exclude 1–7. According to Petitioner, Dr. David's analysis of secondary considerations of nonobviousness is “fundamentally flawed” and the evidence relied upon by Dr. David contains “gaps so fundamental as to warrant exclusion.” *Id.* Petitioner also moves to exclude paragraphs 72, 75–78, 80, 82–84, 92–94, 98, and 102–105 of Dr. David's Declaration (Ex. 2010) under Federal Rule of Evidence 802 on the basis that they contain “hearsay evidence from conversations with unsworn witnesses and undisclosed documents.” *Id.* at 1–2, 7–10. We need not reach the merits of Petitioner's Motion to Exclude because, as explained above, even if the disputed evidence is considered, Patent Owner has not shown proof of secondary considerations that would support a conclusion of nonobviousness of the challenged claims. Accordingly, Petitioner's Motion to Exclude is dismissed as moot.

2. Patent Owner's Motion to Exclude

Patent Owner seeks to exclude paragraphs 50–79 of Dr. Stone's Reply Declaration (Ex. 1022) pertaining to secondary considerations of nonobviousness. PO Mot. to Exclude 1–10. We do not rely on the disputed

evidence in rendering our Decision. Therefore, Patent Owner's Motion to Exclude also is dismissed as moot.

F. Motion for Observation

Patent Owner's observations are directed to the cross-examination testimony of Dr. Stone (Ex. 2076), who was cross-examined after Petitioner filed its Reply. We have considered Patent Owner's observations and Petitioner's responses in rendering our decision, and have accorded the testimony the appropriate weight as explained above. *See* Obs. 1–14. Petitioner's responses are 17 pages, and exceed the 15-page limit specified by 37 C.F.R. § 42.24(b)(3). As such, only the first 15 pages of Petitioner's responses have been considered. *See* Obs. Resp. 1–15.

III. ORDER

Petitioner has demonstrated, by a preponderance of the evidence, that claim 1 is unpatentable over Crawford and Tallman, and that claims 2–5 are unpatentable over Crawford, Tallman, and Goodman, under 35 U.S.C. § 103(a).

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–5 of the '420 patent have been shown to be unpatentable; and

FURTHER ORDERED that Petitioner's Motion to Exclude and Patent Owner's Motion to Exclude are *dismissed*.

This is a final decision. Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2013-00449
Patent 7,840,420 B2

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